The Open Court.

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Recent Contributions to "The Open Court."

BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

FELIX L. OSWALD, M. D. In Nos. 27, 29, 31, 33 34, 36, 38, 40, 42, 44, 46, 48 and 51.

The Science of the thousand-fold *moral effects of physical causes* is still a sealed book to a large plurality of our fellow-men. The ethics we have inherited is biased by the tenets of an anti-physical and anti-natural philosophy, and the tendency of the latter has ever been to sanction and exaggerate the *physical effects of moral causes.* Dr. Oswald says: "Our entire system of moral education needs a thorough revision, and the success of urgent social and ethical reforms depends on the radical reconstruction of moral philosophy on a basis of natural science." The subject is treated in the graphic manner which has ever characterized Dr. Oswald's contributions to the Literature of Natural History and Anthropology. It is marked by the usual wealth of illustration and abounds in felicitous and pertinent citations of historical and natural evidence.

ORIGIN OF REASON.

LUDWIG NOIRE.....In No. 33.

An essay of great importance; will greatly help to explain the views of Max Müller. The same number contains an editorial upon Monism and Philology, in which is discussed the Identity of Language and Thought, the theories of Noiré and Müller, and the proof with which modern philology has corroborated the monistic conception.

ECONOMIC CONFERENCES.

WHEELBARROW.....In Nos. 37, 40, and 47.

The Economic Conferences of Chicago may be hailed as a significant indication of a breach in the barrier between Labor and Capital. The conferences have served as a medium for the open exchange of opinion, where both sides are fairly represented. Wheelbarrow's criticisms are acute and pithy, and merit a careful perusal. The author unites Old Saxon Simplicity, sincerity of heart, the truthfulness of honesty and warm sympathy for justice and right.

TRUTHS FOR THE TIMES. Endorsed by Darwin. 2c. Charles H. Kerr & Co., Publishers, Chicago.

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RECENT CONTRIBUTIONS TO "THE OPEN COURT."

EDWARD. C. HEGELER.

In No. 15, Mr. E. C. Hegeler explains his view of the soul. The soul, he says, is the form of a very complicated, self-acting mechanism of living substance; a part of its activity is accompanied with feeling; the feelings correspond in *form* to the most essential parts of the mechanism. The soul, as expressed by Bock, enters into our brain through the gateway of the senses. Reason is formed through the instrumentality of language. Noiré says: "Man thinks because he speaks." Immortality does not only mean the indestructibility of matter and energy but *soul preservation*. It implies not only continuance of life, but life in a special form. We can to a great extent renew ourselves by forming our soul in the growing generations through education and by example. To preserve and to elevate the *quality* of the human soul, that is the basis of ethics.

Pleasure and pain in the higher man of the future will, in quantity, probably be proportioned as now, but their form, their quality, will change. * * * Whether life is worth living is not the question of ethics, it is beyond our control. If civilized life does not continue, savage life, or even the life of brutes, will take its place. As long as the sun shines upon our earth under similar conditions as now, so long the same quantity of life will continue upon its surface.

GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "**Determinism versus Indeterminism,**" by **Georg Von Gizycki**, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

"The question whether the actions of the will are phenomena which act in conformity to a law, admits of only two answers—*yes* and *no*.

The philosophic theory which holds that they do, has been called *Determinism;* that which says they do not is known as *Indeterminism*."

The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are *determined* by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

EWALD HERING.

Nos. 22 and 23 contain a very eloquent article on "**The Specific Energies of the Nervous System,**" by **Dr. Ewald Hering**, Professor of Physiology at the University of Prague. His useful additions to physiological science are enumerated in the Encyclopedia Britannica, under the heading of "Physiology." Several pages of the Encyclopedia are devoted to Dr. Hering. His discoveries make an era in physiological study, and w remind our readers of his learned and instructive essay on "Mem ory," published in Nos. 6 and 7 of THE OPEN COURT.

Dr. Hering's article on the "Specific Energies of the Nervous System," while profound in argument and full of information in its details, is at the same time so simple in statement and so easily understood that the reading of it is a pleasure as well as a study. Such articles enable us to see farther into Nature than we formerly did, and they reveal to us that her "specific" work is much of it so delicate and fine that the most powerful microscope cannot make it visible to the material eye of man. Throughout the essay the following proposition is maintained: "The germs of each animal species possess an inherent and innate faculty, viz: a *specific energy* which directs its development in a manner characteristic to this animal and no other. Again, each single germ possesses an individual energy which, in addition to the normal features of its species, secures an individual character to its future development."

GEN. M. M. TRUMBULL.

In No. 25 **Gen. Trumbull** has an article on "**The Value of Doubt in the Study of History.**" He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of Romulus and Remus. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says Gen. Trumbull, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."

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THE PSYCHIC LIFE OF MICRO-ORGANISMS.*

BY A. BINET.

Translated from the "Revue Philosophique" by ἀφμκ.

PART III.

The Organs of Sense. All the Micro-organisms are endowed with sensibility; some, like the Infusoria, have exceedingly sensitive powers. But, hitherto, organs of sense anatomically differentiated have been found in only a very small number of species. Generally, the protoplasmic expansions which we have above described under the name of pseudopodia are regarded as fulfilling the function of rudimentary organs of touch which advise the micro-organism of the presence of objects which happen in its path; but these pseudopodia, which at the same time serve as motor apparatus, do not exhibit any structure which especially fits them for the reception of sensory impressions. Similarly, Stein considers the vibratile cilia as organs of touch. As these are organs which have not undergone any differentiation, we shall not stop to consider them. The Infusoria belonging to the genus *Cryptochilum* (Maupas) carry at their posterior extremity a long rigid bristle, which M. Maupas regards as an organ of touch, intended to advise the animal of the approach of other Infusoria.

We shall speak more at length of the organ of sight; this has been the subject of numerous treatises, some of which are quite recent and of the greatest interest to general physiology and psychology. Of all the organs of sense the eye is the one which is first differentiated. It is found in the organisms belonging to the vegetable kingdom as well as in those belonging to the animal kingdom. While these small beings do not seem to possess any organ especially adapted by its structure for the reception of tactile, olfactory, or gustatory impressions, a large number already exhibit an ocular spot, that is to say a differentiated organ, for the purpose of sight and for no other purpose.

Let us first turn our attention to the eye of the Protozoa.

It is chiefly in the group of Flagellates, and principally in the species that are colored green by chlorophyl (for example the Euglenæ), that ocular spots are found; these spots which are colored a bright red, present themselves very clearly to the observation, for they are set off by the uncolored plasma of the anterior part of the body where they are generally located. Oculiform spots are also found in the species colored by yellow chlorophyl (*Uroglena volvox*, etc.). Generally, there is only one spot, situated at the base of the flagellum. This is seen especially in the *Euglena viridis*, a small flagellate infusory, which is very abundant in fresh waters, which it often covers with a thick green coating.

In the *Synura uvella*, a colony-forming flagellate, there exist in each individual, in the anterior part of the body, numerous spots, varying from two to ten.

Below we give an illustration representing the anterior extremity of the *Euglena Ehrenbergii*, according to Klebs. A large ocular spot is noticeable, in contiguity with the contractile reservoir. Ehrenberg, deceived by the appearance of these two organs, had taken the contractile reservoir for a nerve ganglion.

Fig. 6.—Anterior extremity of the *Euglena Ehrenbergii* (after Klebs). *b.* — Mouth and gullet. — *o.* — Eye. — *v. c.* — Contractile vesicle. *r. c.* — Contractile reservoir.

It is not only in the large group of Protozoans that the red spots are met with; they are found also among the vegetable Micro-organisms. A large number of green-colored zoöspores exhibit at the anterior, and usually colorless, extremity of their bodies, a small red point which seems to have exactly the same structure as the red spot of the Euglenæ. It was on this fact that Stein based his opinion that the spot of Euglena is not an eye; to him it seemed impossible to admit that the vegetable Proto-organisms could possess a visual organ. This is an excellent instance of *a priori* reasoning. Later on we shall see that Stein's view has now been completely abandoned; the very opposite view is taken, for the eye of the Protista is considered as being destined to perform chiefly a vegetable function.

Klebs was able to study the structure of the ocular spots, by employing a very ingenious artifice. When the Euglenæ are treated with a solution of sea salt, in the proportion of one part to one hundred, an enormous dilatation of the contractile vesicle, which forms a hollow in the protoplasm of the animal, is induced; now, as the red spot is, so to speak, glued to the vesicle, it undergoes the same dilatation as the latter does,

* Translation copyrighted.

thus greatly facilitating observation. By this treatment it has been observed that the spot is a small discoid or triangular mass, of jagged and irregular outline; it is formed of two material parts; for a base it has a small mass of reticulated protoplasm, and in the meshes of the protoplasm there are small drops of an oily substance, colored red.

This red pigment, which has received the name of hematochrome, is not without its analogy with the green pigment of the chlorophyl, because this latter becomes red under certain conditions. For example, the chlorophyl pigment which fills the entire body of the *Hematococcus pluvialis* becomes red, when the animal enters into a state of rest; the stagnant spores of the algæ also assume a red tint. So, also, in numerous plants, the parts of the flower destined to become red are green as long as they are enclosed in the bud. It is thus probable that the red pigment of the Euglenoids is derived from a green pigment.

What is the physiological significance of these spots? Ehrenberg considered them as eyes; hence the name *Euglena* (word for word, pretty eye), which he had given to a species of Flagellates provided with ocular spots. This interpretation had been questioned by all the authors of his time, especially by Dujardin. At the present day, however, naturalists have come back to it, in consequence of observations which have been made on other Micro-organisms that possess a more perfectly developed eye.

M. Pouchet has discovered in the *Glenodinium polyphemus*, which belongs to the group of Peridinia (or Dinoflagellates, according to the classification of Bütschli), an eye about the function of which there can be no mistake.

This eye occupies a fixed place in the cellule of the Peridinium; it has a uniform location and position. It consists of two parts, the one a veritable crystalline humor, and the other a veritable choroid. The crystalline is a strongly refracting, hyalin, club-shaped body, rounded at its free end, which is always directed forwards, while the other end is immersed in the mass of pigment which represents the choroid. This latter is clearly determined; it forms a sort of hemispherical cap, enveloping the posterior extremity of the crystalline. In one of the two forms of *Glenodinium polyphemus*, the choroid pigment is red; in the other it is black.

M. Pouchet has been able to establish that in the young animals the crystalline is first formed of six to eight refracting globes, which are merged into each other in order finally to constitute one unified mass. Also, the choroid is the result of a combination of the pigmentary granules which, at first sparse, group together and finally form the hemispheric cap that covers the posterior extremity of the crystalline.

In fact, the visual organ of this Peridinium is composed of exactly the same parts as the eye of a metazoön with one exception, the absence of the nerve element. This is not at all differentiated, but remains diffused, like the whole nervous system. M. Pouchet calls attention to the interest which his observation affords from a taxonomic point of view. The Peridinia have sometimes been classed among the vegetables; the presence of starch and of cellulose in their protoplasm has induced Warming to classify them among the Diatomaceæ and Desmidiaceæ. It is admitted to-day that certain Peridinia possess an eye, an organ which has hitherto been considered as the exclusive attribute of animals. Nothing more clearly emphasizes the altogether artificial character of the distinction between animals and vegetables than the results of dealing with Micro-organisms.

Before leaving the Peridinia, we would remark that these small beings afford an interesting fact from the point of view of the history of the Protozoa; they are provided with a long flagellum; they exhibit in addition an equatorial line on which formerly a crown of vibratile cilia was thought to be recognizable: this supposed co-existence of a flagellum and of cilia had determined the naturalists to form a group of Cilioflagellates, serving as a transition between the Flagellates, properly so-called, and the Ciliates. Since then it has been discovered that the Peridinia do not possess vibratile cilia; what had given rise to this error is the presence of a second flagellum on the level of the transverse line which we have just described; the movements of this flagellum have the appearance of vibratile cilia in motion.

Some time before the investigations of M. Pouchet, M. Künstler (of Bordeaux) had discovered, in a Flagellate of the genus *Phacus*, a red eye which is also formed of two parts; it is composed of a homogenous globule, acting as a crystalline humor, and surrounded by a red pigment, acting the part of the choroid.

Before M. Künstler, Claparède and Lachmann, in their important work on Infusoria and Rhizopods, had described a similar visual organ in the *Freia elegans*, a ciliated infusory of the family of Stentorines. "Immediately behind the point of truncation," say they, "there is found a lunate spot of intense black, evidently belonging to the category of those phenomena which M. Ehrenberg, in the Ophryoglenæ, for example, calls an eye or an ocular spot. The significance of this spot has never been known. It was often very much denser than that of the Ophryoglenæ, and sometimes there was discovered behind it a very transparent corpuscle, which involuntarily gave rise in the mind to the idea of a crystalline humor. We cannot, however, add much of importance to this idea, since the functions of a refracting apparatus must neces-

sarily remain problematic, as long as we do not discover behind it a nervous apparatus fitted to perceive the impressions received."

This last conclusion seems to us excessively cautious. The co-existence of a pigment and of a crystalline humor amply suffices to characterize a visual organ. As to the nerve apparatus susceptible of perceiving impressions, it is replaced by the protoplasm, which, as is well known, is sensitive to light.

Even before that, in 1856, Lieberkühn had discovered in a ciliated infusory, the *Panophrys flavicans*, an ocular spot, composed of a convex crystalline humor, having the form of a watch-crystal enveloped by pigment and placed on the convex side of the oral fosse. In another species, the *Ophryoglena atra*, he found black pigment, but no crystalline humor.

It is impossible to believe that these organs are not eyes, for they have the same structure as the eyes of comparatively higher classes of animals, such as certain worms, turbellaria, rotifers, lower-class crustaceans, etc; all these organs are similarly formed of a small crystalline globule enclosed in a small mass of pigmentary matter. The identity of structure naturally leads to the assumption of the identity of functions.

The eye of the Euglena is the simplest of all; it is even reduced to the maximum point of simplicity, as it is composed of a spot of pigment. What induces us to believe that this spot is a visual organ, is the presence of this pigment. In fact this pigment is found in the most elementary visual organs. A second argument might be advanced; the red pigment of the Euglena exhibits the same re-actions as the coloring matter that fills the rods of the retina in the Vertebrates. From among these re-actions common to both, we cite the decoloration under the influence of light (Capranica).

Whatever the case may be, one thing is certain, namely that the Euglena is very sensitive to the light. When they are kept in a vessel, they are invariably seen to cover the side exposed to the light. M. Engelmann has observed that light acts very strongly upon this small animal; it does not act directly on the spot of pigment, nor, as was formerly thought, on the flagellum, but on the protoplasm which is located in front of the spot. The special micro-spectral object glass that M. Engelmann constructed, enables us to see that the Euglenæ always congregate in the band F to G of the spectrum.

So far as the vegetable Micro-organisms are concerned, we have already mentioned that a large number of the algæ zoöspores exhibit, in the anterior part of their body, ocular spots of a beautiful ruby color: these are organs that probably have the same structure as the red spots of the Eugleniæ. Moreover, it is probable that certain Microphytes possess more complex visual organs, composed of red pigment and of a crystalline humor. M. Balbiani has recently testified to this fact in the case of the *Pandorina morum*, a spherical colony of green micro-organisms; in each colony there exists a certain number of individuals which possess a red spot, the shape of which is perfectly circular; if this spot be examined under a glass of very high magnifying power, one can readily see that it is formed of a small spherical globule, covered, on a portion of its surface, by a cap of red matter. This observation is all the more interesting because it is made on a being, the vegetable nature of which is to-day no longer doubted; the Pandorina are Volvocinæ which modern botanists place among the algæ. (We are glad to give our readers the earliest communication concerning this fact.)

In describing the eye of the Protista, we said that the eye is the only organ of sense which is distinctly differentiated in these lower beings. But, perhaps, this assertion is too sweeping. Some species appear armed with small organs which could easily be invested with a sensory function. In this respect, we may cite the *Loxodes rostrum*, a beautiful ciliated infusory, remarkable for its proboscis and for the muscular sheath which closes its mouth. This animal exhibits along the dorsal surface a row of small organs which, by their structure, seem destined to act a part in performing the function of hearing. They are formed of a vesicle, the centre of which is occupied by a refracting globule; they are called the vesicles of Müller, after Johannes Müller, who discovered them. The auditory organs which have been observed in Worms and the Cœlenterata are apparently composed of a vesiculiform capsule enclosing a solid concretion, called otolith. Thus it is possible that the vesicles of Müller may be auditory vesicles. Up to the present time this organ has not been met with in any other species of Protozoa.

(To be continued.)

BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.*

BY FELIX L. OSWALD, M.D.

Part XIII.

HEREDITY—*Continued.*

The occasional futility of great learning, if combined with a penchant for a deductive method of reasoning, has perhaps never been more strikingly illustrated than in Arthur Schopenhauer's theory of hereditary intelligence. His fundamental axiom of considering the "Will" (or moral disposition) the primeval and essential constituent in the elements of the soul-organism, leads him to a variety of singular inferences and at last to the remarkable conclusion that

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intelligence can be inherited only from the mother's side; character (the type of "Will") only from the father's. The abstruse *a priori* arguments in behalf of that hypothesis would deter even philosophical readers of his famous treatise, if they were not supported by an almost unparalleled array of countless and ingenious illustrations. Ancient and modern history, scripture, traditions, and family chronicles, are all made to contribute instances of able men descended from unintelligent, but "will-strong," sires and clever mothers, and the *possibility* of that result is certainly demonstrated with conclusive success, though the final inference is as certainly an illustration of an illusion which mediæval schoolmen used to define as the "*post hoc, ergo propter hoc*" fallacy, or the tendency to mistake a coincidence for the result of a causal connection.

Francis Galton's work would furnish abundant material for refuting the negative part of Schopenhauer's argument which goes to the length of denying the possibility of an hereditary transmission of intellectual abilities from father to son, but the rule that "the best way of exploding a superstition is to explain it," applies perhaps as well to the sophisms of Science. A partial explanation can be found in the biological law of moral heredity already mentioned, considered in connection with the circumstance that biographers for centuries almost confined their researches to male lines of ancestry. We have seen that moral dispositions (in consequence of their more potent sway) are transmitted from parents to children far more invariably than mental faculties, and biographical records, limited to the paternal half of genealogical antecedents, must naturally have dealt chiefly with facts apt to mislead even unprejudiced inquirers.

But a far more important circumstance is the influence of pre-natal agencies temporarily modifying the mental and moral characteristics of immediate ancestors. Ribot quotes a variety of apposite cases to explain occasional exception from the general law of heredity; but biologists have as yet failed to recognize the significance of the fact that the causes of intermittence chiefly affect the *paternal* half of ancestral influences. More than two thousand years ago Aristotle named the mental eclipse of intoxicated parents among the causes of idiocy, and it is safe to say that in the course of the last fifteen centuries ninety-nine per cent. of male, to one per cent. of female, ancestors have thus vitiated the intellectual type of their offspring. Wounds may produce an analogous effect. "In the course of Brown Sequard's masterly experiments on the functions of the nervous system," says Dr. Carpenter, "he discovered that after a partial lesion of the spinal cord of Guinea-pigs a slight pinching of the skin of the face would throw the animal into a kind of epileptic convulsions. That this artificial epilepsy should be constantly producible even after the injury to the spinal cord seemed to have been entirely recovered from, was in itself sufficiently singular;....but it was far more wonderful that, when these epileptic Guinea-pigs bred together, their offspring showed the same predisposition, without having been themselves subjected to any lesion whatever, while no such tendency showed itself in any of the large number of young which were bred by the same accurate observer from parents that had not thus been operated upon."

Wounds on the head are well known to affect, more or less permanently, the mental equilibrium of the patient, and several modern pathologists record cases of soldiers, miners, etc., who had been prostrated by a fracture of the skull and who ever afterwards were subject to periodic headaches and intermittent fits of mental disorders. There is no doubt that affections of that sort are often hereditary, especially during the period immediately following the predisposing accident, and here again we may safely assume that in nine out of ten cases the inherited tendency has been transmitted from the male line of ancestors. Even among savage tribes who delegate all sorts of hard labor to the female slaves procured with or without the formality of a nuptial rite, the more perilous pursuits of war and the chase are reserved for the sterner sex; and statistics prove that among a hundred cases of external injuries admitted to our public hospitals there are eighty-five per cent. of male patients, a percentage which in time of war may rise to ninety-five or above. Sunstroke, business troubles, and paroxysms of wrath are all apt to initiate a predisposition to mental disorders and to claim a considerable plurality of male victims. A few years ago my attention was called to the case of a young southern business-man of excellent habits, who without any conceivable cause began to sink under the gradual progress of a disorder which the local physicians defined as "softening of the brain." He had always been more than usually careful of his health. His aversion to stimulants extended to tea and coffee; he had never used tobacco in any form. The affluence of his parents precluded the necessity for over-application to business, and his duties in that respect, had, indeed, been mostly confined to formalities of supervision, and had never been permitted to interfere with the leisure of his holidays and evening hours. There was no taint of mental disease on either side of his ancestors, and the genesis of his affliction seemed an absolute mystery, till his mother informed me that during the year preceding the birth of her only son, his father had been subject to fits of agonizing headaches, caused by a sunstroke and the absurd prescrip-

tions of an alcohol quack. On the other hand, a conjunction of favorable circumstances may transmit an intensified, or happily modified, form of ancestral faculties. The ancient Greeks surrounded child-bearing mothers with all the pleasant influences of nature and art, and Robert Burton suggests that the law of primogeniture was originally founded on the belief that the best faculties of a sire could be transmitted only under the influence of passionate love, a belief apparently shared by the philosopher Vanini, who goes so far as to regret the legitimacy of his birth, because "clandestine amours imply sincere passion, which in married life is soon superseded by the feeble substitute of marital duty." The custom of all nations makes the nuptial week a season of festivities, for reason perhaps analogous to those determining the pairing-season of animals and birds which in all but the highest latitudes so often coincides with the most pleasant time of the year. During the year preceding the birth of Francis Bacon both his parents were cheered by a series of happy events in the turn of their family affairs; Madame de Staël mentions that her father's first year of married life realized all his ideals of earthly happiness, and it is said that during the four months prior to to the birth of Napoleon Bonaparte his mother lived in constant ecstasies of political excitements and adventures.

The consideration of such facts would abundantly explain the occasional variations from the type of ancestral characteristics, but at the same time complicate to an almost hopeless degree the difficulty of predicting, in any special case, the result of hereditary influences. Special faculties may become eliminated from a combination of talents deriving their efficiency from that very gift; the results of marriage may complement a brilliant but defective type of intellect or character, and the infinite number of possible combinations and modification must be admitted to include the following momentous chances:

1) Possibility of worst qualities inherited from both sides;

2) Advantages of one side neutralized by defects of the other;

3) Partial advantages of one side supplemented by favorable additions from the other;

4) Best qualities inherited from both sides.

The results of the first named contingency are illustrated in the characteristics of certain types of Spanish-American mongrels who seem to combine the restless passions of a Caucasian adventurer with the stupidity and the brutal vices of a degraded savage. A less dangerous, but even more repulsive, combination of ugly character-traits is said to result from the union of the indolent Malays and knavish Chinamen of the Sunda archipelago; and even the ethical tolerance of our Mexican neighbors is sometimes overtaxed by the depravity of Chinese-African mongrels, who, in the words of a British traveler, "have just brains enough to be mean, and whose penchant for crimes against nature is limited only by their cowardice."

Slight modifications in a combination of character-traits may often completely change the practical result. A son of a gifted father may inherit the wit and the talents of his progenitor, but lack his energy; the children of a genial spendthrift may avoid his errors and their penalties by a grain of prudence; the boys of a profound but pedantic philosopher may achieve popularity by a leaven of mother-wit. "*Heroum filii noxæ*," was a Latin proverb justified by the frequent phenomenon of misused energies inherited from an heroic father whose adventurous disposition was balanced by moral principles.

The hope of the fourth contingency is occasionally realized by the union of persons representing the types of advanced and yet contrasting civilizations, and thus wedding idealism to practical energy, or loyalty to a love of freedom. Education in a land of strangers, superadded to strength of mind, may lead to a curiously similar result, and we accordingly find that a list of great names on all rolls of fame includes a remarkable number of men, either of mixed blood or of composite citizenship: Napoleon, Columbus, Seneca, Trajan, Kanut, Mirabeau, Byron, Bruno, Anacharsis, Spinoza, Chamisso, Moses, Disraeli, Macmahon, Marshal Saxe, De Staël, Rousseau, Herschel, Arago, Vandyck, Dumas, Heine.

It is a significant fact that during the brightest period of Pagan civilization the bonds of political separatism had been considerably relaxed; and the free inter-marriage of a population representing the most enterprising and intelligent tribes of the Caucasian race is perhaps the most favorable omen for the social future of our cosmopolitan republic.

(To be continued.)

HERBERT SPENCER ON THE ETHICS OF KANT.*

Mr. Herbert Spencer has published in *The Popular Science Monthly* for August, an essay on the Ethics of Kant; a translation of this article had appeared in the July Number of the *Revue Philosophique*, and it cannot fail to have been widely noticed. It is to be regretted that unfamiliarity with the German language and perhaps also with Kant's terminology has led Mr. Spencer into errors to which attention is called in the following discussion.

Mr. Spencer says:

"If, before Kant uttered that often-quoted saying in which, "with the stars of Heaven he coupled the conscience of Man, as "being the two things that excited his awe, he had known more of

*Quotations from Mr. Spencer's essay will be distinguished by quotation-marks, while those from Kant will appear in hanging indentations.

"Man than he did, he would probably have expressed himself some-
"what otherwise."

Kant, in his famous dictum that two things excited his admiration, the starry heaven above him and the conscience within him, contrasted two kinds of sublimity.* The grandeur of the Universe is that of size and extension, while the conscience of man commands respect for its moral dignity. The universe is wonderful in its expanse and in its order of mechanical regularity; the conscience of man is grand, being intelligent volition that aspires to be in harmony with universal laws.

Mr. Spencer continues:

"Not, indeed, that the conscience of Man is not wonderful
"enough, whatever be its supposed genesis; but the wonderfulness
"of it is of a different kind according as we assume it to have been
"supernaturally given or infer that it has been naturally evolved.
"The knowledge of Man in that large sense which Anthropology
"expresses, had made, in Kant's day, but small advances. The
"books of travel were relatively few, and the facts which they con-
"tained concerning the human mind as existing in different races,
"had not been gathered together and generalized. In our days, the
"conscience of Man as inductively known has none of that univer-
"sality of presence and unity of nature which Kant's saying tacitly
"assumes."

Mr. Spencer apparently supposes that Kant believed in a supernatural origin of the human conscience. This, however, is erroneous.

Mr. Spencer's error is excusable in consideration of the fact that some disciples of Kant have fallen into a similar error. Professor Adler, of New York, who attempts in the Societies for Ethical Culture to carry into effect the ethics of Pure Reason, maintains that the commandments of the *ought* and "the light that shines through them come from beyond, but its beams are broken as they pass through our terrestrial medium, and the full light in all its glory we can never see."

Ethics based on an unknowable power, is mysticism; and mysticism does not essentially differ from dualism and supernaturalism.

Kant's reasoning is far from mysticism and from supernaturalism. He was fully convinced that civilized man with his moral and intellectual abilities had naturally evolved from the lower state of an animal existence. We read in his essay, "Presumable Origin of the History of Mankind" (Muthmasslicher Anfang der Menschengeschichte. Editio Hartenstein, Vol. IV, p. 321):

"From this conception of the primitive history of mankind it follows that the departure of man from the paradise represented to him by his reason as the earliest place of sojourn of his race, has been nothing else than the transition from the rude condition of a purely animal existence to the condition of a human being; a transition from the leading-strings of instinct to direction by reason, in a word, from the protectorate of nature to a status of freedom."

The view that the conscience of man is innate, in the sense of a non-natural, of a mysterious, or even of a supernatural origin, is untenable. Those disciples of Kant who entertain such views have certainly misinterpreted their great master, and the passages adduced by Mr. Spencer from so many sources are sufficient evidence of the fact that "there are widely different degrees" [we should rather say kinds] "of conscience in the different races." Mr. Spencer continues:

"Had Kant had these and kindred facts before him, his con-
"ception of the human mind, and consequently his ethical con-
"ception, would scarcely have been what they were. Believing,
"as he did, that one object of his awe—the stellar Universe—has
"been evolved,* he might by evidence like the foregoing have
"been led to suspect that the other object of his awe—the human
"conscience—has been evolved; and has consequently a real
"nature unlike its apparent nature." * * * "If, instead of assuming
"that conscience is simple because it seems simple to careless in-
"trospection he had entertained the hypothesis that it is per-
"haps complex—a consolidated product of multitudinous expe-
"riences received mainly by ancestors and added to by self—
"he might have arrived at a consistent system of Ethics." * * *

"In brief, as already implied, had Kant, instead of his incon-
"gruous beliefs that the celestial bodies have had an evolutionary
"origin, but that the minds of living beings on them, or at least on
"one of them, have had a non-evolutionary origin, entertained the
"belief that both have arisen by Evolution, he would have been
"saved from the impossibilities of his Metaphysics, and the untena-
"bilities of his Ethics."

Mr. Spencer believes that Kant had assumed conscience to be "simple, because it seems simple to careless introspection." But there is no evidence in Kant's works for this assumption. On the contrary, Kant reversed the old view of so-called "rational psychology" which considered conscience as innate and which was based on the error that consciousness is simple. Des Cartes's syllogism *cogito ergo sum* is based on this idea, which at the same time served as a philosophical evidence for the indestructibility and immortality of the *ego*. The simplicity of consciousness had been considered as an axiom, until Kant came and showed that it was a fallacy, a paralogism of pure reason. Dr. Noah Porter has written, from an apparently dualistic standpoint, a sketch entitled "The Ethics of Kant," in which he says:

"The skepticism and denials of Kant's speculative theory in respect to noumena, both material and psychical, had unfortunately cut him off from the possibility of recognizing the personal *ego* as anything more than a logical fiction."

Kant says in his "Critique of Pure Reason": †

* Kant distinguishes two kinds of sublimity: 1) the mathematical, and 2) the dynamical. His definitions are: 1) sublime is that in comparison with which everything else is small; and 2) sublime is that the mere ability to conceive which shows a power of emotion (Gemüth), the latter transcending any measurement by the senses. [1) Erhaben ist, mit welchem im Vergleich alles andere klein ist. 2) Erhaben ist, was auch nur denken zu können ein Vermögen des Gemüths beweist, das jeden Maasstab der Sinne übertrifft. Editio Hartenstein, Vol. V, pp. 257, 258.]

* The stellar Universe, of course, has not been evolved; Mr. Spencer means that according to Kant's mechanical explanation the planetary systems and milky ways of the stellar Universe are in a state of constant evolution.

† Translation by J. M. D. Meiklejohn, pp. 244, 249.

"In the internal intuition there is nothing permanent, for the *Ego* is but the consciousness of my thought. * * * From all this it is evident that rational psychology has its origin in a mere misunderstanding. The unity of consciousness, which lies at the basis of the categories, is considered to be an intuition of the subject as an object; and the category of substance is applied to the intuition. But this unity is nothing more than the unity in *thought*, by which no object is given; to which therefore the category of substance cannot be applied."*

Concerning the statement that Kant had believed in the non-evolutionary origin of living beings, we quote from his essay on *The Different Races of Men*, Chap. III, where Kant speaks of "the immediate causes of the origin of these different races." He says:

"The conditions (*Gründe*) which, inhering in the constitution of an organic body, determine a certain evolutionary process (*Auswickelung*†) are called, if this process is concerned with particular parts, *germs*; if, on the other hand, it touches only the size or the relation of the parts to one another, I call it *natural capabilities* (*natürliche Anlagen*)."‡

And in a foot-note Kant makes the following remark:

"Ordinarily we accept the terms natural science (*Naturbeschreibung*) and natural history in one and the same sense. But it is evident that the knowledge of natural phenomena, as they *now are*, always leaves to be desired the knowledge of that which they *have been* before now and through what succession of modifications they have passed in order to have arrived, in every respect, to their present state. *Natural History*, which at present we almost entirely lack, would teach us the changes that have affected the form of the earth, likewise, the changes in the creatures of the earth (plants and animals), that they have suffered by natural transformations and, arising therefrom, the departures from the prototype of the original species, that they have experienced. It would probably trace a great number of apparently different varieties back to species of one and the same kind and would convert the present so intricate school-system of Natural Science into a natural system in conformity with reason." §

Kant has nowhere, so far as we know, made any objection to the idea of evolution. But he opposed the theory that all life should have originated from *one single* kind. In reviewing and epitomizing Joh. Gottfr. Herder's work, "*Ideen zur Geschichte der Menschheit*," Kant says:

* * * "Book II, treats of organized matter on the earth. * * * The beginnings of vegetation. * * * The changes suffered by man and beast through climatic influences. * * * In them all we find one prevailing form and a similar osseous structure. * * * These transitional links render it not at all impossible that in marine animals, in plants, and, indeed, possibly in so-called inanimate substances, one and the same fundamental principle of organization may prevail, although infinitely cruder and more complex in operation. In the sight of eternal being, which beholds all things in one connection, it is possible that the structure of the ice-particle, while receiving form, and of the snowflake, while being crystallized, bears an analogous relation to the formation of the embryo in a mother's womb. * * * The third book compares the structure of animals and plants with the organization of man. * * * It was not because man was ordained to be a rational creature that upright stature was given him for using his limbs according to reason; on the contrary he acquired his reason as a consequence of his upright stature. * * * From stone to crystals, from crystals to metals, from metals to plant-creation, from thence to the animal, and ultimately to man, we have seen the form of organization advancing, and with it the faculties and instincts of creatures becoming more diversified, until at last they all became united in the human form, in so far as the latter could comprise them. * * * As the body increases by food, so does the mind by ideas; indeed, we notice here the same laws of assimilation, of growth, and of generation. In a word, an inner spiritual man is being formed within us, which has a nature of its own and which employs the body as an instrument merely. * * * Our humanity is merely a preliminary training, the bud of a blossom to come. Step by step does nature cast off the ignoble and the base, while it builds and adds to the spiritual and continues to fashion the pure and refined with increasing niceness; thus are we in a position to hope from the artist-hand of nature that in that other existence our bud of humanity will also appear in its real and true form of divine manhood." * * *

[Herder's idea of evolution would stand on the whole if his conception of "the spiritual" did not imply a preternatural agent.]

"The present state of man is probably the link of junction between two worlds. * * * Yet man is not to investigate himself in this future state; he is to believe himself into it."

Kant makes no objection whatever to the evolutionary ideas of Herder. But Herder was not free from supernaturalism and from fantastic ideas in reference to the future development of man. He had not yet dropped the dualistic conception of the 'duplicity' of man and believed in the immortality of a distinct spiritual individual within his body. Kant's objection, therefore, is twofold; 1) against Herder's supernaturalism which leads him beyond this world; and, 2) against the descent of *all* species from *one and and the same genus*. He says:

"In the gradation between the different species and individuals of a natural kingdom, nature shows us nothing else than the fact that it abandons individuals to total destruction and preserves the species alone. * * * As concerns that *invisible* kingdom of active and independent forces, we fail to see why the author, after having believed he could confidently infer from organized beings, the existence of the rational prin-

* Compare also Kant's "Prol. zu jeder künftigen Metaphysik," § 46.

† We call attention to Kant's peculiar expression, in this passage, of *Auswickelung* which has now yielded to the term *Entwickelung*.

‡ Die in der Natur eines organischen Körpers (Gewächses oder Thieres) liegenden Gründe einer bestimmten Auswickelung heissen, wenn diese Auswickelung besondere Theile betrifft, *Keime*; betrifft sie aber nur die Grösse oder das Verhältniss der Theile unter einander, so nenne ich sie *natürliche Anlagen*.

§ Wir nehmen die Benennungen *Naturbeschreibung* und *Naturgeschichte* gemeiniglich in einerlei Sinne. Allein es ist klar, dass die Kenntniss der Naturdinge, wie sie *jetzt sind*, immer noch die Erkenntniss von demjenigen wünschen lasse, was sie ehedem *gewesen* sind und durch welche Reihe von Veränderungen sie durchgegangen, um an jedem Ort in ihren gegenwärtigen Zustand zu gelangen. Die *Naturgeschichte*, woran es uns noch fast gänzlich fehlt, würde uns die Veränderung der Erdgestalt, imgleichen die der Erdgeschöpfe (Pflanzen und Thiere), die sie durch natürliche Wanderungen (sic! I take it as a misprint for *Wandelungen*) erlitten haben, und ihre daraus entsprungenen Abartungen von dem Urbilde der Stammgattung lehren. Sie würde vermuthlich eine grosse Menge scheinbar verschiedener Arten zu Racen ebenderselben Gattung zurückführen, und das jetzt so weitläuftigte Schulsystem der Naturbeschreibung in ein physisches System für den Verstand verwandeln.

ciple in man did not rather attribute this principle directly to him merely as spiritual nature, instead of lifting it out of chaos through the structural form of organized matter. * * * As to the gradation of organized beings, our author is not to be too severely reproached, if the scheme has not met the requirements of his conception, which extends so far beyond the limits of this world; for its application even to the natural kingdoms here on earth leads to nothing. The slight differences exhibited when species are compared with reference to their common points of resemblance, are, where there is such great multiplicity, a necessary consequence of just this multiplicity. The assumption of common kinship between them, inasmuch as one kind would have to spring from another and all from one original and primitive species, or from one and the same creative source (Mutterschoss)—the assumption of such a common kinship would lead to ideas so strange that reason shrinks from them, and we cannot attribute this idea to the author without doing him injustice. Concerning his suggestions in comparative anatomy through all species down to plants, the workers in natural science must judge for themselves whether the hints given for new observations, will be useful and whether they are justified. * * * It is desirable that our ingenious author who in the continuation of his work will find more *terra firma*, may somewhat restrain his bright genius, and that philosophy (which consists rather in pruning than in fostering luxuriant growth), may lead him to the perfection of his labors not through hints but through definite conceptions, not by imagination but by observation, not by a metaphysical or emotional phantasy but by reason, broad in its plan but careful in its work."

Kant rejected certain conceptions of evolution, but he did not at all show himself averse to the idea in general. He touched upon the subject only incidentally and it is certain that he did not especially favor or entertain the belief in a non-evolutionary origin of living beings.

Before proceeding to the main points of his criticism, Mr. Spencer calls attention to what he designates as Kant's *abnormal* reasoning. Mr. Spencer says:

"Something must be said concerning abnormal reasoning as "compared with normal reasoning." * * *

"Instead of setting out with a proposition of which the negation is inconceivable, it sets out with a proposition of which the "affirmation is inconceivable, and therefrom proceeds to draw conclusions." * * *

"The first sentence in Kant's first chapter runs thus: 'Nothing can possibly be conceived in the world, or even out of it, "which can be called good without qualification, except a Good "Will.'" * * *

"Most fallacies result from the habit of using words without "fully rendering them into thoughts—passing them by with recognitions of their meanings as ordinarily used, without stopping to "consider whether these meanings admit of being given to them in "the cases named. Let us not rest satisfied with thinking vaguely "of what is understood by 'a Good Will,' but let us interpret the "words definitely. Will implies the consciousness of some end to "be achieved. Exclude from it every idea of purpose, and the conception of Will disappears. An end of some kind being necessarily implied by the conception of Will, the quality of the Will is "determined by the quality of the end contemplated. Will itself, "considered apart from any distinguishing epithet, is not cognizable "by Morality at all. It becomes cognizable by Morality only when "it gains its character as good or bad by virtue of its contemplated "end as good or bad." * * *

"Kant tells us that a good will is one that is good in and for "itself without reference to ends."

It is unfortunate that Mr. Spencer misunderstood the first sentence of Kant's book (*Grundlegung zur Metaphysik der Sitten*). Kant does not speak of "a good will without qualification," nor does the expression "without qualification" refer to "a will without reference to ends." Kant speaks of good will in opposition to other good things. Nothing, he says, can without qualification (*ohne Einschränkung*) be called good, except a good will.* Dr. Porter sums up the first page of Kant's essay in the following words:

"The first section of the treatise opens with the memorable and often-quoted utterance, that 'nothing can be possibly conceived in the world, or even out of it, which can be called good without qualification, except a good will.' If character is compared with gifts of nature, as intelligence, courage, and gifts of fortune, as riches, health, or contentment, all these are defective, 'if there is not a good will to correct their possible perversion and to rectify the whole principle of acting, and *adapt it to its end.*'† A man who is endowed with every other good can never give pleasure to an impartial, rational spectator unless he possesses a good will. 'Thus a good will appears to constitute the indispensable condition of being worthy of happiness.' * * * 'Moreover, a good will is good not for what it effects but for what it intends, even when it fails to accomplish its purposes, * * * as when the man wills the good of another and is impotent to promote it, or actually effects just the opposite of what he proposes or wills.'"

In the passages quoted by Dr. Porter, Kant speaks of "the *end* to which good will adapts other goods"; and in another passage of the same book, Kant directly declares that "it is the *end* that serves the will as the objective ground of its self-determination." Mr. Spencer must have overlooked these sentences. Kant says:

"The will is conceived as a power of determining itself to action in accordance with the conception of certain laws. And such a power can only be met with in rational beings. *Now it is the END that serves the will as the objective ground of its self-determination*, and this end, if fixed by reason alone, must hold equally good for all rational creatures."

* * *

Kant rejects the idea that happiness is the end and purpose of life and at the same time he declares that ethics must be based not on the pursuit of happiness but on the categorical imperative or more popularly expressed on our sense of duty.

Mr. Spencer argues:

"One of the propositions contained in Kant's first chapter is "that 'we find that the more a cultivated reason applies itself with "deliberate purpose to the enjoyment of life and happiness, so "much the more does the man fail of true satisfaction.'" * * *

"That which Kant should have said is that the *exclusive* pursuit of what are distinguished as pleasures and amusements is disappointing." * * *

"It is not, as Kant says, guidance by 'a cultivated reason,'

* The original of the first sentence reads: "Es ist überall nichts in der Welt, ja überhaupt auch ausser derselben zu denken möglich, was ohne Einschränkung für gut könnte gehalten werden, als allein ein guter Wille."

† *Italics are ours.*

"which leads to disappointment, but guidance by an uncultivated "reason."

The passage quoted by Mr. Spencer from Kant, reads in its context as follows:

"In the physical constitution of an organized being we take it for granted* that no organ for any purpose will be found in it but such as is also the fittest and best adapted for that purpose. If in a being possessing reason and will, the preservation, the prosperity, in a word, the happiness of that being, constituted the actual purpose of nature, nature had certainly adopted an extremely unwise expedient to this end, had it made the reason of that being the executive agent of its purposes in this matter. For all actions that it had to perform with this end in view, and the whole rule of its conduct, would have been far more exactly prescribed by *instinct*, and this end would have been far more safely attained by this means than can ever take place through the instrumentality of *reason*." * * *

"As a matter of fact we find that the more a cultivated reason occupies itself with the purpose of enjoying life and happiness, the farther does the person possessing it recede from the state of true contentment; and hence there arises in the case of many, and pre-eminently in the case of those most experienced in the exercise of reason, if they are only frank enough to confess it, a certain degree of misology or hate of reason; for after weighing every advantage that they derive, I will not say from the invention of all arts facilitating ordinary luxury, but even from the sciences, (which after all are in their eyes a luxury of the intellect,) they still discover that virtually they have burdened themselves more with toil and trouble than they have gained in point of happiness, and thus, in the end, they are more apt to envy than contemn the commoner type of men who are more immediately subject to the guidance of natural instinct alone, and who do not suffer their reason to influence in any great degree their acts and omissions."

Kant uses the expression "cultivated reason" not in opposition to "uncultivated reason," but "to instinct" as that inherited faculty which teaches a being to live in accordance with nature and its natural conditions, without the interference of thought and reflection.

That uncultivated reason would lead to disappointment, Kant never would have denied. He would have added: "It does more, it leads to a speedy ruin."

But if reason does not produce happiness, what then is the use of reason? Kant answers, reason produces in man the good will.

It is reason which enables man to form abstractions, to think in generalizations and to conceive the import of universal laws. When his will deliberately and consciously conforms to universal laws, it is good.

Kant says:

"Thus will (viz. the good will) can not be the sole and whole Good, but it must still be the highest Good and the condition necessary to everything else, even to all desire of happiness." * * *

"To know what I have to do in order that my volition be good, requires on my part no far-reaching sagacity. Unexperienced in respect of the course of nature, unable to be prepared for all the occurrences transpiring therein, I simply ask myself: Can'st thou so will, that the maxim of thy conduct may become a universal law? Where it can not become a universal law, there the maxim of thy conduct is reprehensible, and that, too, not by reason of any disadvantage consequent thereupon to thee or even others, but because it is not fit to enter as a principle into a possible enactment of universal laws."

If a maxim of conduct is fit to enter as a principle into a possible enactment of universal laws, it will be found in harmony with the cosmical laws; if not, it must come in conflict with the order of things in the universe. It then cannot stand, and will, if persistently adhered to, lead (perhaps slowly but inevitably) to certain ruin.

Concerning the proposition that happiness may be regarded as the purpose of life Kant in his review of Herder's "Ideen zur Philosophie der Geschichte der Menschheit" Ed. H. IV, p. 190), speaks of the relativity of happiness and its insufficiency as a final aim of life:

* * * "First of all the happiness of an animal, then that of a child and of a youth, and lastly that of man! In all epochs of human history, as well as among all classes and conditions of the same epoch, that happiness has obtained which was in exact conformity with the individual's ideas and the degree of his habituation to the conditions amid which he was born and raised. Indeed, it is not even possible to form a comparison of the degree of happiness nor to give precedence to one class of men or to one generation over another. * * * If this shadow-picture of happiness.... were the actual aim of Providence, every man would have the measure of his own happiness within him. * * * Does the author (Herder) think perhaps that, if the happy inhabitants of Otaheite had never been visited by more civilized peoples and were ordained to live in peaceful indolence for thousands of years to come—that we could give a satisfactory answer to the question why they should exist at all and whether it would not have been just as well that this island should be occupied by happy sheep and cattle as that it should be inhabited by men who are happy only through pure enjoyment?"

Concerning the mission or purpose of humanity and its ultimate realization, Kant interprets Herder's views as follows:

"It involves no contradiction to say that no individual member of all the offspring of the human race, but that only the species, fully attains its mission (Bestimmung). The mathematician may explain the matter in his way. The philosopher would say: the mission of the human race as a whole is *unceasing progress*, and the perfection (Vollendung) of this mission is a mere idea (although in every aspect a quite useful one) of the aim towards which, in conformity with the design of providence, we are to direct our endeavors."

We learn from the passages quoted from Kant that his idea of good will is neither mystical and su-

*The phrase "we take it for granted" (in the original "nehmen wir es als Grundsatz an)" reads in the translation quoted by Mr. Spencer: "we take it as a fundamental principle." Mr. Spencer objects to the passage declaring that there *are* many organs (such as rudimentary organs) in the construction of organized beings which serve *no* purpose. This however does not stand in contradiction to Kant's assumption that organs of organized beings serve a special purpose. The rudimentary organs have under other conditions served a purpose for which they then were fit and well adapted and are disappearing now because no longer used

pernatural, nor is it vague. It is a conception as logically and definitely defined as any mathematical definition. Good will in the sense in which Kant defines it, is only possible in a reasonable being by the power of its reason. The good will is the intention of conforming to universal principles and thus of being in harmony with the All. This good will is the cornerstone of Kant's ethics; it appears as the categoric imperative of duty, so to act that the maxim of one's conduct may be fit to become a universal law. It is formulated in another passage: "Act so as if the maxim of thy conduct by thy volition were to become a natural law."

It is easily seen that, in Kant's conception, the *ought* of morals (viz. of the categoric imperative) does not stand in contradiction to the *must* of natural laws. Kant's conception is monistic, not dualistic. Kant says:

> "The moral *ought* is man's *inner*, *necessary* volition as being a member of an intelligible world and is *conceived* by him as an ought only in so far as he considers himself also as a member of the sensory world."*

Our way of explaining it would be: Man *feels* in his activity the categoric imperative as an ought. So the snow crystal, if it were possessed of sensation, would *feel* its formation as an "ought." But both are, and to an outside observer will appear, as a "must."

(To be continued.)

THE LOST MANUSCRIPT.†

BY GUSTAV FREYTAG.

CHAPTER XXII.—THREE COUNCILS.

The year of the Rectorate had so changed the household and the current of Ilse's thoughts that she remarked with astonishment to her husband, "I feel as if I had just come from school into the bustle of the world." Her husband's days were engrossed with distracting business: difficult transactions between the University and Government, and vexatious occurences among the students, took up a great portion of his time.

The evening, also, did not pass as in the first year, when Ilse watched the quiet labors of her husband, or listened to his friends; for many were occupied by the sessions of the Senate, and others by large parties, which, as Rector, he could not avoid. When their friends came to tea, the master of the house was often absent.

Ilse had taken her father's lessons to heart; she lived in the present, and avoided distracting thoughts. Her husband took pains to keep from her anything that could disturb her repose of mind, and the intellectual diet which he now gave her did her good. When he again saw her in society in all her health and strength, with color in her cheeks and a cheerful expression in her countenance, he felt it his duty for ever to preserve this soul from the intrusion of conflicting ideas; and he was pleased that, by frequent intercourse with various kinds of men, and by the light bonds of a genial society, she began to feel at home in his circle. It delighted him, too, to find that her ingenuous nature was appreciated; and she was not only treated with distinction by the men, but was also a favorite with the ladies.

Ilse would not, however, allow her private conclave—as she called the hours during which she received her husband's instruction—to be disturbed; she adhered to it with rigid strictness; and if a day was missed, the lost time had to be made up on the following one. But even these lessons took a different course. The Professor now read to her small extracts from old writers, who portrayed, in prose and verse, the attractive beauty of the life of the ancients; her innocent mind entered into the cheerful enjoyment of this strange world, and the impressions which she received agreed perfectly with the way in which she now regulated her own life. The Professor explained to her some of the poems of the Greek anthology and of Theocritus, and a few of the Roman lyrics; and, by way of comparison, he read to her the poems of the great German who, in a remarkable way, had been able to unite Greek beauty with German feeling.

At her reception, Ilse showed all the dignity of her position as the Rector's wife; every room was opened; the apartments were decorated and brilliantly illuminated; the heads of the University and city, with their wives, made their appearance in numbers; and the Prince and his Chamberlain did not fail to be present. Laura assisted gracefully in doing the honors, and quietly gave directions to the servants; cake and wine were passed around; the guests made themselves very agreeable, and separated in the highest spirits. The great evening had passed off happily; the Doctor and Laura had left; Ilse gave her last injunctions to Gabriel, and passed through the rooms once more, with the glad feeling that she had done honor to Felix and herself. She came into her dressing-room, and glanced into the mirror.

"You need not examine yourself critically," said the husband, "everything was beautiful; but the most beautiful of all was the Rector's wife."

"Damon, my shepherd," replied Ilse, "you are blinded. It is not the first time you have said this, but I like to hear it; you may still tell it often to me. But Felix," she continued, as she unloosened her hair, "there is something inspiring about such a

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* Das moralische Sollen ist also ein eigenes nothwendiges Wollen als Gliedes einer intelligiblen Welt, und wird nur sofern von ihm als Sollen gedacht, als er sich zugleich wie ein Glied der Sinnenwelt betrachtet. Ed. Hartenstein vol IV. p. 303.

† Translation copyrighted.

society even where people do nothing but talk. One does not carry away much of it, but still there is a pleasure in being among them; they are all so courteous and endeavor to appear to the best advantage, and each tries to please the other."

"They do not all succeed in giving a fair idea of what they are on such occasions, least of all we book-worms," replied Felix. "But there is no doubt these gatherings give a certain similarity of language and manner, and, finally, also of ideas to persons who live in the same circle. This is very necessary, for even those who live together often differ as much in their thoughts and feelings as if they had been born in different centuries. How did you like the Chamberlain?"

Ilse shook her head. "He is the most courteous and lively of all, and knows how to say something civil to every one; but one cannot trust him, for, as with an eel, one has no hold on him, and can never for a moment look into his heart. I prefer our Prince with his stiff manner. He talked to me about his sister to-day; she must be very clever and charming. To which of your centuries does he belong?"

"To the middle of the last," replied her husband, laughing; "he is a full century earlier than we are, of the period when men were divided into two classes—those who were fit to be received at Court, and serfs. But if you examine those about us, you will discover even greater disparities. There is our Gabriel, who in his prejudices and his poetry belongs to an age three centuries earlier than the present. His ways of thinking remind one of the time in which the great Reformers first educated our people to think. On the other hand, the hostile neighbors are, in many points of view, the representatives of two opposing tendencies which ran parallel to each other towards the end of the last century—in our house, obstinate rationalism; in the old people over there, a weak sentimentality."

"And what time do I belong to?" asked Ilse, placing herself before her husband.

"You are my dear wife," he exclaimed, trying to draw her towards him.

"I will tell you," continued Ilse, eluding him: "in your opinion, I belong to a former age, and once that made me more unhappy than I can express. But I no longer care about it. For when I can compel you to kiss my hand as often as I desire it"—the Professor was very willing—"when I see that it requires no persuasion to induce you to kiss me on the lips—it is not necessary that you should try it now,—I believe you. Further, when I observe that the learned gentleman is not disinclined to hand my slippers to me, and perhaps even my dressing gown—I do not wish to give you trouble now, but unhook my ear-rings and open the jewel-box,—and when I, besides, observe that you are anxious to please me, that at my wish you took the wife of the Consistorial Councillor to dinner, whom you could not bear, and that you have bought me this beautiful dress, although you understand nothing about buying; when I, further, see that Magnificus is quite under my sway, that I have the keys of the pantry, and even manage the accounts; and, lastly, when I bear in mind that you, good bookworm, think me, your wife Ilse, worthy of a little discussion together with your Greeks and Romans, and that it is a pleasure to you when I understand a little of your learned writings—I come to the conclusion that you belong entirely to me, you and your century, and that it is quite indifferent to me in what period of the world's history my spirit originated. Then when I, the relic of a distant century, pinch your ear, as I do now, the great master of the present and future, and his philosophizing on the different natures of men, become simply ludicrous. Now that I have held this discourse, can you sleep quietly?"

"That would be difficult," replied the Professor, "whilst the learned housewife is fluttering about the bed, holding discourses in her dressing-gown which are more lengthy than those of a Roman philosopher, and whilst she rattles the doors of the cupboards and wanders about the room."

"My tyrant requires his coffee early in the morning, so it must be given out now, and I cannot sleep if I have not all the keys near me."

"I see nothing will be of any use," said the Professor, "but a serious exorcism."

"I must see whether there are any lights burning in the rooms." But immediately afterwards she knelt down by the bed, and threw her arms round his neck. "Everything is so charming in the world, Felix," exclaimed she; "let us humbly pray that our happiness may last."

Yes, you are happy, Ilse; but, as your father said, you have to thank your prudence for it, not your courage.

* * *

When Ilse wrote to her father, to describe how the great evening party had passed off, she did not forget to add that her future Sovereign had been among the guests, and that she had had much intelligent conversation with him. Her father did not appear to attach much value to this last communication, for he answered, rather irritated, "If you are so influential an adviser, exert yourself to obtain a decision for us in regard to the highway. The affair has been before the magistrates for ten years; it is a shame that we should be so cut off from all the world. The gray has broken his leg. Our estate would be worth ten thou

sand dollars more if the Government were not so dilatory."

Ilse read the letter to her husband, and said, "We can tell the Prince about the road; he can arrange it with his father."

Her husband laughed. "I will not undertake this commission: it does not appear to me as if the Prince would have great influence with the Government."

"We will see about that," replied Ilse, gaily; "at the next opportunity I shall speak to him about it."

This opportunity soon occurred. The Consistorial Councillor, who was now Theological Dean, had a tea-party. It was a distinguished and dignified assembly, but not agreeable to Ilse; she had long mistrusted the piety of the Dean, for beneath the gown of the bland gentleman she clearly saw a fox's tail peeping out; in the speeches of the Dean's wife there was an unpleasant mixture of honey and gall. The rooms were small and hot, and the guests seemed bored; but the Hereditary Prince and his Chamberlain had promised to come. As he entered, the master of the house and some of the guests who were acquainted with the customs of the Court endeavored to form a line for his reception; but all their attempts were vain, from the heedlessness or obstinacy of most of the company. The Prince, led by the Dean, had to make his way through the groups up to the mistress of the house. His eyes turned from her sharp features and wandered about to where Ilse stood, like a being from another planet; she looked quite majestic; her ribbon head-dress sat like a coronet on her wavy hair, which in great abundance almost surrounded her head. The Prince looked shyly up to her, and could scarcely find proper words with which to accost her. When, after a short greeting, he again turned to the rest of the company, Ilse was displeased; she had expected more attention from their intimacy. She did not consider that his position in society was not that of a private man, and that he had to fulfill his princely duties before he could go about like others. Whilst with inward disgust he did what his position required of him, going slowly round, he went first to Ilse's husband, then to the other dignitaries; had some presented to him, and asked the questions that are considered right in these cases; but he waited impatiently for the time when fate would allow him to have a little conversation with his countrywoman. But he did his duty bravely; the Professor of History expressed his pleasure that some old chronicles of his country would be publised, and endeavored, half-talking and half-teaching, to impress him with their importance. Meanwhile the Prince thought that the Rector's wife would, at least, sit at his left hand, the Chamberlain having pointed out to him that the Dean's wife might be at his right.

The affair was doubtful. The Dean's wife was certainly the hostess, but the evening had a certain official University tone about it, and Ilse was undoubtedly entitled to precedence among the professors' wives. Nevertheless, all question ceased to exist when the fact was considered that the Dean, on account of numerous presentations of theological works, and many letters of admiring homage, had been made by the reigning sovereign, Knight Commander of his order. He had been so exalted by this, as the Chamberlain explained, that the difference of dignity between the Magnificus and Dean was more than compensated, and the Dean's wife had therefore the first place. The Chamberlain acknowledged that in reality it was a matter of no consequence how people were seated here, for there could be no question of any right of rank in this society. But it would be more becoming for the Prince not to neglect all distinctions.

At his left, at all events, the Prince hoped to have Ilse. But even this hope was frustrated by the artfulness of the Dean's wife. For there was amongst the company a Colonel's wife; they were people of old family, but recently come to the place. The lady of the house lost no time in taking the Colonel's wife up to the Chamberlain, and on meeting, it turned out that they had common relations. By this the whole arrangement of rank at supper was disturbed. The lady claimed her right to be presented. The Chamberlain took her to the Prince, who cleverly anticipated the former's intention, and expressed a wish to make the lady's acquaintance.

"She allows herself to be presented to a student!" said little Mrs. Günther, astonished.

"That is a breach of social rights, which touches the dignity of woman," said Mrs. Struvelius, displeased.

"But she did it very nicely," said Ilse; "her manner with him pleases me."

The ladies did not know that the object of their remarks was, in this moment of apparent humiliation, enjoying the triumph of a higher position. The Prince, the Colonel's wife, and the Chamberlain for a short time formed a group, from which the light of the evening radiated, all three with the proud consciousness that they were united in a bond of fellowship among strangers.

The consequence of this presentation was that the Colonel's wife sat at the left of the Prince, and Ilse between two Deans opposite to him. It did not make it easier for the Prince to preserve his princely dignity when every time he looked up, he saw the eyes and curls of his countrywoman opposite to him. The evening passed slowly for him, and it was not till the party was breaking up that he had an opportunity of speaking to Ilse without restraint.

(To be continued.)

GEORGE M. GOULD.

In Nos. 24, 25 and 26 **Mr. George M. Gould** treats of "**The Ethics of Economics**" rather as a quality absent from our economic system than as a living principle belonging to it. His doctrine is that all things produced by human labor represent the expenditure of human life, and that dollars and dimes, being representatives of wealth or earnings, are as drops of precious human blood. Therefore, in order to a rightful ownership of dollars, we must earn them; we must return to society a share of our own lives equal to the quantity we have received from our fellow men. According to Mr. Gould, whenever we eat or drink we partake of a solemn eucharist, where "the shadowy ghost of humanity calls out to us: 'Take, eat; this is my body. Drink ye all of this, my blood which is shed for many.'" This is not to be understood metaphorically, he says, but as "an exact statement of the fact."

While perhaps the theory of economics presented by Mr. Gould may not be scientifically true in all its parts, the moral he draws from the actual facts of our industrial system is true enough for warning and for guidance. The partnership of capital and labor is the panacea of Mr. Gould, the solution of the labor question. But from his ideal plans of industrial emancipation he excludes unpleasant facts. He allows only *profit*-sharing to come in, and *loss*-sharing is never taken into calculation. Yet it is the possibility of loss that has thus far defeated the "co-operation" experiment. It is doubtful if the operatives in any great factory would accept the whole plant as a gift, if compelled to take it on the terms by which its owners run it, the chances of profit and *loss*.

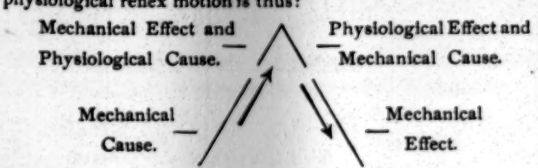
There is some extravagance in his language, but that is only a measure of his benevolent impatience at the inequalities and wrongs which refuse to be cured by his remedies. That the "ethics of economics" lies in the doctrine of "equivalence for service" is very likely true, but there is a difference of opinion as to the correct measure of that "equivalence," and a still greater dispute as to the means by which that measure shall be legalized and enforced.

G. H. SCHNEIDER.

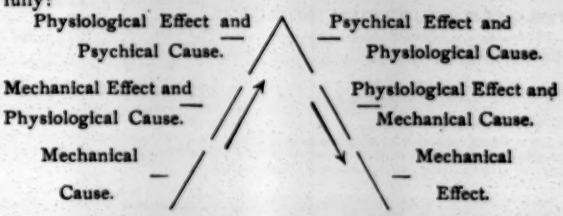
In No. 24 will be found an essay of profound and radical thought on "**Reflex Motions**" by **G. H. Schneider.** The chaos of the old psychology is cleared since modern psychology begins to discover the laws which govern the intellectual domain of the soul. Schneider shows that the activity of the mind can be resolved into pure reflex actions, and illustrates his view in the following diagrams:

A mechanical cause, say the pressure of a limb, produces a mechanical effect, viz., the motion of the limb.

The physiological aspect is more complicated. The mechanical cause (say the pressure of a limb) causes a mechanical effect (for instance, a compression of flesh). This mechanical effect produces a physiological cause (viz., a change of the chemical constituents in the muscle and nerve tissues). This physiological effect produces a mechanical cause (which may be a cramp of the muscle), and accordingly it causes as a further mechanical effect a prolonged contraction of the limb. The diagram for a physiological reflex motion is thus:



The psychical reflex motion superadds the element of consciousness. A mechanical cause (say somebody receives a blow on his arm) produces a mechanical effect. This mechanical effect causes a physiological effect in the muscle and nerve tissues, which again is the cause of a psychical effect, as pain is felt. This psychical effect causes another psychical effect, which may result in a state of anger and desire for vengeance. This psychical effect again is the cause of a physiological effect. It acts on the motory nerves, which in their turn causes the motory muscles to contract and retaliate the blow. The blow returned is in this case the mechanical effect of the first mechanical cause, i. e. the blow received. The following diagram will explain it more fully:


Physiological Effect and Psychical Cause.
Psychical Effect and Physiological Cause.
Mechanical Effect and Physiological Cause.
Physiological Effect and Mechanical Cause.
Mechanical Cause.
Mechanical Effect.

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